



IFW

Docket No.: 217771US0PCT

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313



RE: Application Serial No.: 10/030,424
Applicants: Yasuhiro YONEDA, et al.
Filing Date: January 10, 2002
For: POLISHING LIQUID COMPOSITION
Group Art Unit: 1765
Examiner: UMEZ-ERONINI, L. T.

SIR:


Attached hereto for filing are the following papers:
Response to Notice of Non-compliant Amendment (2 pp.)
Amendment filed August 31, 2005, and Date-stamped Filing Receipt
Office Action dated October 20, 2004 (Cover Sheet and Office Action Summary)
Office Action dated June 2, 2005 (Cover Sheet and Office Action Summary, pp. 2 and 4)

Our check in the amount of \$0.00 is attached covering any required fees. In the event any variance exists between the amount enclosed and the Patent Office charges for filing the above-noted documents, including any fees required under 37 C.F.R. 1.136 for any necessary Extension of Time to make the filing of the attached documents timely, please charge or credit the difference to our Deposit Account No. 15-0030. Further, if these papers are not considered timely filed, then a petition is hereby made under 37 C.F.R. 1.136 for the necessary extension of time. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Norman F. Oblon


Corwin P. Umbach, Ph.D.

Registration No. 40,211

Customer Number

22850

(703) 413-3000 (phone)
(703) 413-2220 (fax)

DOCKET NO: 217771US0PCT



IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :
YASUHIRO YONEDA, ET AL. : EXAMINER: UMEZ-ERONINI, L.
SERIAL NO: 10/030,424 : GROUP ART UNIT: 1765
FILED: JANUARY 10, 2002 : RCE FILED: FEBRUARY 22, 2005
FOR: POLISHING LIQUID :
COMPOSITION :

RESPONSE TO NOTICE OF NON-COMPLIANT AMENDMENT

COMMISSIONER FOR PATENTS
ALEXANDRIA, VIRGINIA 22313

SIR:

In response to the Notice of Non-Compliant Amendment dated November 7, 2005, Applicants respectfully re-submit the attached Amendment, which was originally filed August 31, 2005.

The Amendment identifies Claims 9, 14, 17-18 and 28 as "Previously Presented" and Claims 15-16 and 19-20 as "Currently Amended". The Notice asserts that the Amendment is non-compliant because "claims 9, 14-20, 28 were previously presented as 'withdrawn'". Applicants respectfully traverse the Notice's implicit assertion that Claims 9, 14-20 and 28 are currently withdrawn.

Claims 9, 14-20 and 28 had the status of being withdrawn from consideration immediately following the Office Action dated October 20, 2004. See the attached Office Action Summary from the Office Action dated October 20, 2004, indicating that "claim(s) 9, 14-23, and 28-30 is/are withdrawn from consideration".

However, the Amendment filed August 31, 2005, was filed in response to the Office Action dated June 2, 2005. The attached Office Action Summary from the Office Action dated June 2, 2005, indicates that that no claims are currently withdrawn from consideration. Furthermore, the Office Action dated June 2, 2005, rejects Claim 9 under 35 U.S.C. § 102(b) over DD 249489A ("Kriltz") (see attached page 2) and rejects Claim 28 under 35 U.S.C. § 102(b) over U.S. Patent No. 5,783,489 ("Kaufman-489") (see attached page 4). Because Examiners do not examine and reject withdrawn claims, these rejections confirm that no claims are currently withdrawn from consideration.

Because the Amendment filed August 31, 2005, associates the correct status identifier with each of the claims, the Amendment filed August 31, 2005, meets the requirements of 37 C.F.R. § 1.121 and is not non-compliant.

Applicants respectfully request that the Amendment filed August 31, 2005, be promptly forwarded to the Examiner for examination.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.
Norman F. Oblon



Corwin P. Umbach, Ph.D.
Registration No. 40,211

Attached:

Amendment filed August 31, 2005, and date-stamped filing receipt
Office Action dated October 20, 2004 (Cover Sheet and Office Action Summary)
Office Action dated June 2, 2005 (Cover Sheet and Office Action Summary, pp. 2 and 4)

Customer Number

22850

Tel: (703) 413-3000
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(OSMMN 08/03)



OSMM&N File No. 217771US0PCT

Serial No. 10/030,424

In the matter of the Application of: Yasuhiro YONEDA, et al.

For: POLISHING LIQUID COMPOSITION

Dept.: CHEMICAL

By: NFO/CPU/wmb

Due Date: September 2, 2005

The following has been received in the U.S. Patent Office on the date stamped herec

■ Credit Card Form for \$400.00

■ Dep. Acct. Order Form

■ Amendment Cover Sheet

■ Amenmdent (16 pp.)





UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,424	01/10/2002	Yasuhiro Yoneda	217771USOPCT	3839
22850	7590	10/20/2004	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			UMEZ ERONINI, LYNETTE T	
			ART UNIT	PAPER NUMBER
			1765	

DATE MAILED: 10/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

RECEIVED: 10-21-04
OBLON, SPIVAK, McCLELLAND
MAIER & NEUSTADT, P.C.
DOCKETING DEPT.
Initials/Date Docketed: CX 10-21-04
Type of Resp(s): Rd / NA(1st)
Due Date(s): 1-20-05 / 2-20-05



Office Action Summary

Application No.

10/030,424

Applicant(s)

YONEDA ET AL.

Examiner

Lynette T. Umez-Eronini

Art Unit

1765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2004.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9, 11-20 and 28-32 is/are pending in the application.
- 4a) Of the above claim(s) 9, 14-23, and 28-30 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-4, 6-11 and 13 is/are allowed.
- 6) ☒ Claim(s) 5, 12, 31, and 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,424	01/10/2002	Yasuhiro Yoneda	217771USOPCT	3839

22850 7590 06/02/2005

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

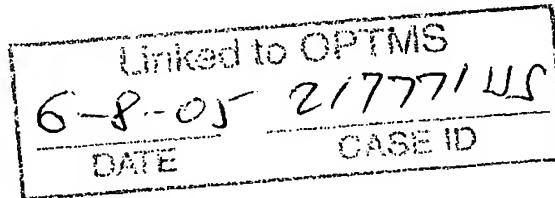
UMEZ ERONINI, LYNETTE T

ART UNIT PAPER NUMBER

1765

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



RECEIVED: 6-3-05
OBLON, SPIVAK, MCCLELLAND
MAIER & NEUSTADT, P.C.
DOCKETING DEPT.

Initials/Date Docketed: CRX 16-6-05
Type of Resp(s): RD
Due Date(s): 9-2-05



Office Action Summary

Application No.

10/030,424

Applicant(s)

YONEDA, YASUHIRO

Examiner

Lynette T. Umez-Eronini

Art Unit

1765

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

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Status

- 1) ☒ Responsive to communication(s) filed on 22 February 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 9, 11-20, 28-30 and 38-42 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 9, 11-20, 28-30, and 38-42 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
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- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
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- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. The previous rejection has been withdrawn because the former prior art of record failed to teach: A polishing liquid composition comprising: $R^1-X-(CH_2)_q-[CH(OH)]_n-CH_2OH$ (I), along with the rest of the limitations, as recited in (Original) Claim 1; and the amine that is represented by formula (II), (Previously Presented) Claim 6.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kriltz (DD 249489A).

Kriltz teaches a chemical and mechanical cleaning and polishing composition consisting of aqueous iron (III) salt solutions containing alcohols and aggressive media. The alcohols may be primary, secondary or tertiary alcohols, diols or triols. The aforementioned reads on,

Using organic and inorganic acids as etchants and for adjusting pH of polishing compositions and using oxidizing agent and abrasive in polishing compositions are known. Hence, it would have been obvious to one having ordinary skill in the art at the time of the claimed invention to employ inorganic and organic acids as etchants, oxidizing agent, and abrasive since they are known to be effective in polishing semiconductor materials.

Claim Rejections - 35 USC § 102

7. Claims 5, 12, 28, 29, and 38-42 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Kaufman (US '489).

As to claims 5, 12, and 38-42, In Kaufman's Description of the Art, "In a typical process, via holes are etched through an interlevel dielectric (ILD) to interconnection lines . . . Next, a thin adhesion layer . . . is generally formed over the ILD and is directed into the etched via hole. Deposition is continued until the via hole is filled with the blanket deposited metal. Finally, the excess metal is removed by chemical mechanical polishing (CMP) to form metal vias" (column 1, lines 49-54 and 56-59). Kaufman also teaches, "A chemical mechanical polishing slurry comprising at least two oxidizing agents, an organic acid and an abrasive . . ." (Abstract). ". . . A wide range of conventional organic acids, salts or organic acids, and mixtures thereof are useful in the CMP slurry of the present invention to enhance the selectivity of oxide polishing rate. . . Preferably the organic acid is selected from the group of acetic acid (same as applicant's organic etching acid), . . . lauric acid, . . . myristic acid, . . . palmitic acid, . . .